

Notice of Allowability

Application No.

10/825,486

Examiner

Tai Duong

Applicant(s)

LEE ET AL.

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response 09/25/2006.
2. ☒ The allowed claim(s) is/are 1-34, 63-76 and 83-102.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

TUANTON
PRESIDENT EXAMINER

EXAMINER'S AMENDMENT

This application is in condition for allowance except for the presence of claims 35-62, 77-82 and 103-114 directed to species non-elected without traverse.

Accordingly, claims 35-62, 77-82 and 103-114 have been cancelled.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims

Claims 35-62, 77-82 and 103-114 have been cancelled.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The rejection over US 2005/0128406 is withdrawn in view of the certified English translations of the foreign priority papers.

Claims 1, 13 and 24 are allowed over the prior art of record. None of the prior art discloses or suggests an array substrate for an in-plane switching liquid crystal display device and a method of forming such array wherein the array comprises "a common electrode extending from the common line and including a plurality of common electrode patterns, wherein an outermost portion of common electrode pattern is substantially rectangle-shaped within the pixel region and has a substantially circular opening in the middle thereof; a capacitor electrode overlapping the substantially rectangle shaped common electrode pattern, the capacitor electrode connected to the thin film transistor; a pixel connecting line disposed substantially parallel to the data line in the pixel region and connected to the capacitor electrode; and a pixel electrode disposed within the substantially circular opening, extending from the pixel connecting line and including a plurality of pixel electrode patterns, wherein an innermost pixel electrode pattern has a substantially circular shape and other pixel electrode are patterned to have circular bands, wherein an innermost portion of the plurality of common electrodes is circular band shaped, and wherein the aperture area is circular band shaped".

Claims 63 and 70 are allowed over the prior art of record. None of the prior art discloses or suggests an array substrate for an in-plane switching liquid crystal display device and a method of forming such array wherein the array comprises "a common

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electrode extending from the common line and including a plurality of common electrode patterns, wherein an outermost common electrode pattern is substantially rectangle-shaped within the pixel region and has a substantially circular opening in the middle thereof; a capacitor electrode overlapping a previous gate line of a previously neighboring pixel region; a pixel electrode within the substantially circular opening and including a plurality of pixel electrode patterns; and a pixel connecting line substantially parallel to the data line in the pixel region and connected to the capacitor electrode, the pixel electrode and the drain electrode of the thin film transistor, wherein the pixel electrode overlaps portions of the pixel connecting line and directly contacts the pixel connecting line, wherein an innermost pixel electrode pattern has a substantially circular shape and other pixel electrode patterns are patterned to have circular bands, and wherein an innermost portion of the plurality of common electrode patterns is substantially circular band shaped, and wherein the aperture area is circular band shaped”.

Claim 83 is allowed over the prior art of record. None of the prior art discloses or suggests an array substrate for an in-plane switching liquid crystal display device comprising “a common electrode extending from the common line and including a plurality of common electrode patterns, wherein an outermost common electrode pattern is substantially shaped like a rectangle within the pixel region and has a substantially rectangular opening in the middle thereof; a capacitor electrode overlapping the substantially rectangular common electrode pattern, the capacitor electrode connected to the thin film transistor; a pixel connecting line substantially

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parallel to the data line in the pixel region and connected to the capacitor electrode; and a pixel electrode within the substantially rectangular opening, extending from the pixel connecting line and including a plurality of pixel electrode patterns, wherein an innermost pixel electrode pattern has a substantially circular shape and other pixel electrode patterns are patterned to have circular bands, wherein an innermost portion of the plurality of common electrode patterns is circular band shaped, and the aperture area is circular band shaped”.

Claims 92 and 100 are allowed over the prior art of record. None of the prior art discloses or suggests an array substrate for an in-plane switching liquid crystal display device and a method of forming such array wherein the array comprises “a capacitor electrode overlapping a previous gate line of a previously neighboring pixel region; a pixel connecting line substantially parallel to the data line in the pixel region, extending from the drain electrode, and connecting the capacitor electrode and the drain electrode of the thin film transistor; a passivation layer over the thin capacitor and pixel electrodes, the passivation layer having first and second contact holes that expose the common line and pixel connecting line, respectively; a common electrode on the passivation layer and having a plurality of common electrode patterns, wherein an outermost common electrode pattern is continuously connected to neighboring outermost common electrode patterns of neighboring pixel regions and has a substantially circular opening in the middle of the pixel region, and other common electrode patterns have circular band shapes; and a pixel electrode disposing within the substantially circular opening and including a plurality of pixel electrode patterns,

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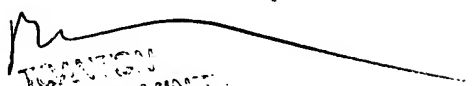
wherein an innermost pixel electrode pattern has a substantially circular shape and is disposed over a crossing of the common and pixel connecting lines, and the other pixel electrode patterns have circular band shapes".

The remaining claims are also allowed since they depend on the allowed claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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12/06